



Research Article

© 2021 Abdul Rashid et al..
This is an open access article licensed under the Creative Commons
Attribution-NonCommercial 4.0 International License
(<https://creativecommons.org/licenses/by-nc/4.0/>)

Received: 11 March 2021 / Accepted: 3 June 2021 / Published: 8 July 2021

The Role of Digital Marketing in Assisting Small Rural Entrepreneurs Amidst Covid-19 Movement Control Order (MCO): A Case Study in Peninsular Malaysia

Siti Masayu Rosliah Abdul Rashid¹

Fatimah Hassan¹

Norhafiza Md. Sharif¹

Azimah Abd Rahman²

Mohd Amirul Mahamud²

¹Geography Section, School of Distance Education,
Universiti Sains Malaysia, Pulau Pinang, Malaysia

²Geoinformatic Unit, School of Humanities,
Universiti Sains Malaysia, Pulau Pinang, Malaysia

DOI: <https://doi.org/10.36941/ajis-2021-0099>

Abstract

The coronavirus (COVID-19) outbreak is causing a global health crisis, which has inevitably led to a worldwide economic slowdown. In Malaysia, the small business sector is most affected by the movement control order (MCO). The MCO has caused the closure of the retail and transport sectors that has sharply curtailed the daily operations of the majority of small entrepreneurs, leading to a loss in income. However, if small business communities make optimal use of digital applications for their business activities, their income will be less affected by the current Covid-19 pandemic. Furthermore, the everyday use of ICT has the potential to create numerous landscape improvement and business continuity, specifically for small and medium entrepreneurs (SMEs). This, in turn, would increase community participation in entrepreneurship. Therefore, it is crucial to study the role of digital marketing in strengthening new business norms among small entrepreneurs during the Covid-19 pandemic. It is also imperative to identify other factors that can help boost digital business. This research examined the relationship between ICT use in empowering rural entrepreneurs during MCO in Malaysia. The study design consisted of a quantitative form for each research instrument using the Google Form online survey. This study's sample was selected using a particular sampling method (purposive sampling) and snowball sampling (snowball sampling) involving 158 small rural entrepreneurs in Penang, Malaysia. The data were analysed using Statistical Package for Social Science (SPSS) version 27.0 software. The findings showed that the respondents navigated the Covid-19 pandemic by carrying out business activities on the digital platform and took full advantage of the ICT applications as part of their new business norms. This study can provide input for the government to formulate strategies related to ICT in increasing awareness among rural entrepreneurs. Additionally, the input of this study can offer programs and activities to further enhance the entrepreneurs' skills in using ICT.

Keywords: Covid-19; income; poverty; small entrepreneurs; digital business

1. Introduction

The Covid-19 pandemic has forced many countries to impose travel restrictions and movement control orders. The spread of the Covid-19 pandemic affects health and directly affected the economic conditions of most countries around the world, especially the business activities of small traders. During the early period of the Covid-19 pandemic, small business owners have begun to believe that this pandemic will continue and give the impact that they will encounter unexpected economic problems (Bartik et al. 2020). In Malaysia, the small business sector is one of the sectors most affected by the Movement Control Order (MCO). This is due to the closure of the retail and transport sectors, which sharply curtailed the daily operations of a majority of small entrepreneurs leading to a loss of income (Abdul Rashid, Hassan, & Ahmad, 2020).

During that period, most small business entrepreneurs began to lose their sources of income due to supply disruptions and the closure of support sectors, job losses, and lack of savings (Kawi 2020; Muhammad Nasir 2020). Most businesses, especially in rural areas, are under significant financial pressure, and many fail to make ends meet. Various strategies are needed to alleviate the difficulties faced by small rural entrepreneurs affected by the Covid-19 pandemic to combat this issue.

Business entrepreneurs can take advantage of the situation and fully utilize ICT through digital applications while exploring more opportunities to use technology in their respective businesses (Sharples 2020). This is because the Covid-19 pandemic has brought about the need for digital capabilities, which proves that any business can survive and be sustainable (Millhiser 2020).

The effects and consequences of the Covid-19 pandemic in rural areas can help small rural entrepreneurs to strengthen their digital skills and knowledge. Gardner & Blondeau (2020) found that using digital services and expertise in rural areas to reduce constraints caused by the MCO helps overcome the problem of disposing of fresh products and perishable foodstuff with a limited shelf life (Fabiell et al. 2020). Besides that, there are also several strategies to strengthen digital knowledge among small rural entrepreneurs. The strategies identified can be implemented by rural entrepreneurs during this crisis in the form of insurance products, pension schemes, rental arrangements, agricultural finance, low-value equity investments, e-payment options, and cash transfers using digital access. Digital-based participation in business activities plays an essential role during the MCO and social imprisonment period because it enables rural communities to conduct financial transactions without having to travel outside the community, utilizing any business location or even conducting business from their home (Hayter 2020).

Since ICT has a significant role to play in society, it is a suitable platform for community transformation, which makes ICT a catalyst for generating entrepreneurs' income. Currently, the Fourth Industrial Revolution (IR 4.0) is the latest revolution to expand the use of the Internet and ICT in various aspects of society. This revolution brought changes to multiple aspects of society's life, especially the reliance on the Internet, which changes the way information is accessed and disseminated in society (Nagamani & Veni, 2016; Ibrahim Abu Ahmad, 2016). IR 4.0 strengthens the role of ICT in developing the economy, increasing GDP growth, offering employment opportunities, initiating organizational restructuring, sustaining productivity, and eradicating poverty (Palvial, Baqirb & Nematia, 2017). In order to empower the community, involvement in ICT needs to be strengthened. ICT has a huge role to play in society as it is a suitable platform to process the transformation of rural communities, especially rural entrepreneurs. Therefore, this study aims to examine the extent of ICT's potential in helping to empower small rural entrepreneurs and examine other factors that can help improve these entrepreneurs' digital business.

2. Literature Review

Since Covid-19 hit the world, adverse effects on almost all of the world's economies have begun to emerge. The Covid-19 crisis, followed by the closure of borders and governments, has shocked the economy and labour markets worldwide by influencing production factors, supply and demand (Johnsen et al. 2020). Consequently, the Covid-19 pandemic has led to the emergence of adverse

implications on all aspects of community life, eventually disrupting economic activities that affect households and business income in rural areas (Philipson et al. 2020).

The current Covid-19 pandemic has forced the entire world to take measures, such as closures of social activities and other restrictions to control the spread of the pandemic. Nevertheless, despite the proven success in reducing the spread of the pandemic, the social and economic aspects of all walks of life have stalled or become disrupted. According to Dube & Kathende (2020), not all in the community can afford to remain at home without carrying out any economic activity to generate income for their families during the MCO. Most communities, especially those who depend on the informal economy, such as small businesses in the agricultural sector, household goods or trade, cannot carry out their usual business activities during the MCO. For example, it is estimated that nearly 80 to 90% of the population in African countries work in informal economies (Dube & Kathende 2020). During the Covid-19 pandemic, it is estimated that most African countries have lost their output, amounting to \$79 billion (Dube & Kathende 2020).

A study conducted by Fairlie (2020) found that business entrepreneurs in Asian countries, especially in China, have suffered losses due to consumer discrimination on their businesses because they have been accused as the leading cause of the Covid-19 pandemic in Wuhan, China. As many as 230,000 business entrepreneurs (26%) had suffered losses in business activities starting from February 2020. Despite their recovery in May and June, business activities still declined between 21 to 10% during these months. This situation also caused business entrepreneurs in Asian countries to experience income loss (Fairlie 2020). In the West, a similar situation also occurred when there was a decrease in business activities from February to April involving 1.8 million business owners with a total loss of 17%. White business owners also experienced a decline in operating business at the rate of 11% in May and 5% in June (Fairlie 2020).

Katooro (2020) argued that social closure and restriction measures in most countries have serious impacts, such as causing a decline in income, job loss, and insolvency, especially those involved in the Small and Medium Industry (SMI) sector. An interview by the International Institute of Rural Reconstruction (2020) with SME found that some women entrepreneurs in rural Africa provided negative feedback, such as feeling depressed due to limited or no market products available, insufficient sales, limited mobility and no alternative income, which at the same time caused their lives to be severely affected by the Covid-19 pandemic (Katooro 2020).

In India, the Covid-19 situation has restricted agricultural activities and food production. According to Dev & Sengupta (2020), movement restrictions and the closure of districts in all provinces had reduced the demand for agricultural supply products, causing enormous losses for Indian farmers. The study also revealed that the closing of hotels, restaurants, and supermarkets had resulted in an 80% decline in sales of milk products. As a result, agricultural products, such as milk and fruits, had to be discarded, causing massive losses (Dev & Sengupta 2020).

Meanwhile, in Malaysia, economic analysts believe that Malaysia could experience an economic downturn following the Covid-19 pandemic, which has contributed to global and domestic challenges (Abdul Aziz 2020). The challenges could affect the small business sector due to the temporary closure of business premises during the MCO Phase 1 period. Maritz et al. (2020) stated that from a global perspective, the importance of business and entrepreneurship sectors during the pandemic could put tremendous financial pressure on global businesses in the face of an economic downturn caused by the impact of Covid-19. Entrepreneurial factors such as enthusiasm, empathy, innovation, self-confidence, commitment to the business, and new business models may be relevant to the stress faced by entrepreneurs currently.

Sharples (2020) suggested that it would be better if the whole country enforces restrictions and closures of all business premises and introduce online business through digital applications and explore opportunities to use technology in their respective businesses. This is because when Covid-19 hits the whole country, the need for digital capabilities enables the long-term survival of organizations, or the digital platform can be employed entirely in the future. Besides, ICT is suitable as an intervention tool for businesses in the face of the Covid-19 pandemic.

A study by Lundin (2020) in China before the Covid-19 pandemic found that the digital economy plays an essential role as a catalyst of economic growth and social transformation. A study by the Tencent Research Institute in China during the Covid-19 pandemic involving 1638 digital business-oriented entrepreneurs found that most entrepreneurs agreed to increase investment in digital businesses by 10 to 30%. The study also found that most entrepreneurs who use the digital business platform use three main digital mediums, namely for marketing, service development, and communication purposes. This is because digital-based business strategies are important and can be a driver of digital transformation, which has led to the current level of economic growth in China as well as further future growth (Lundin 2020).

According to Saari (2020), the Covid-19 pandemic affects the national economy and requires serious attention from various interested parties. Every segment of society needs to play a proactive role in helping the government manage the economy during the Covid-19 crisis. Among the community's function is to optimize the advantages of digital technology to diversify sources of income. For small entrepreneurs, the MCO period is the best time to transform their businesses. This is because entrepreneurs can change from traditional marketing methods to digital marketing by directly marketing goods to consumers' homes through orders made via digital applications (Saari 2020).

One of Malaysia's initiatives was the implementation of a short-term economic recovery plan within six months, from June to December 2020. The government and the private sector had provided financing grants worth RM140 million for enterprises to digitalize and become online businesses (BERNAMA 2020). It is predicted that this recovery plan will help various parties to foster innovation and develop local venture capital talents, especially among small entrepreneurs.

3. Research Methods

This study aims to examine ICT's potential and capability in ensuring the effectiveness of digital marketing among small entrepreneurs during the Covid-19 pandemic. This study adopted the quantitative research method, and the population of this study consisted of small entrepreneurs from *Tasek Gelugor* and *Balik Pulau* areas in Penang, Malaysia. These small entrepreneurs conduct online business activities using social media as a business platform.

Balik Pulau is one of the districts located in the southwest of Penang Island. It is a suburban area with the majority of residents engaged in informal activities, such as agriculture, fisheries and food product via Small Medium Enterprises (SME).

Tasek Gelugor is located in Seberang Perai Utara district, near the Kedah state border. Most of the communities in *Tasek Gelugor* also engage in business activities through SMEs in addition to oil palm plantation activities. The locations of both districts are illustrated in Figure 1.



Figure 1. Map of the study area

The selected study sample was based on a list of entrepreneurs in the WhatsApp group of small entrepreneurs in the *Tasek Gelugor* area (77 respondents) and the *Balik Pulau* area (89 respondents). The study used the Purposive Sampling method, and there were several phases of the survey in this study.

The first phase of the survey used questionnaires from Google Form links which lasted for a period of four days (5 to 8 June, 2020). In this phase, the researchers shared Google Form links with two WhatsApp groups of small business entrepreneurs, one located in *Tasek Gelugor* while the other in *Balik Pulau* areas (166 respondents). However, only 42 respondents responded. Next, the researcher conducted a second survey by providing a personal Google Form link to respondents who are members of the two WhatsApp groups. This second phase of the survey started on 9 to 15 June 2020. The number of respondents increased to 57, bringing the total number of respondents to 99.

Since the number of respondents was inadequate, this study decided to conduct a third survey using the Snowball sampling method to obtain respondents who are small business entrepreneurs through Facebook from a list of selected traders in Penang, mainly in *Tasek Gelugor* and *Balik Pulau* areas. The researchers provided personal links to individuals who have businesses in *Tasek Gelugor* and *Balik Pulau* areas, located within the suburban areas in Penang. The Snowball sampling method lasted eight days, from 18 to 25 June 2020. Three days was considered sufficient as 59 respondents had participated in this survey, bringing the total number of respondents to 158. Table 1 shows the sample selection methods used in this study:

Table 1. Sample Collection Methods

Category	Population	1st survey	2nd survey	Snowball Sampling	Sample
WhatsApp Business Group <i>Tasek Gelugor</i>	77	20	26		46
WhatsApp Business Group <i>Balik Pulau</i>	89	22	31		53
Facebook Page Business					
i. Food Delivery <i>Tasek Gelugor, Sungai 2, Kepala Batas</i>				21	59
ii. <i>Balik Pulau</i> Food & Healthy Product Delivery				38	
Total					158

Source: Online survey (June 2020)

4. Results and Discussions

This section consists of four (4) parts, namely the demographic profile, business profile, post Covid-19 business strategies and statements concerning online business. The data were analyzed using the Statistical Package for the Social Sciences (SPSS) software version 27.0.

4.1 Demographic profile

Respondents' demographic profiles are shown in Table 2.

Table 2. Demographic profile

Profile	Frequency (n)	Percentage (%)
Age		
21 to 30	50	31.6
31 to 40	58	36.7
41 to 50	30	19.0
51 to 60	20	12.7
Total	158	100.0

Profile	Frequency (n)	Percentage (%)
Sex		
Male	49	31.0
Female	109	69.0
Total	158	100.0
Education level		
Higher education (1st degree)	98	62.0
Higher School Certificate	17	10.8
Secondary education	43	27.2
Total	158	100.0

Source: Online survey (June 2020)

The findings show that most respondents are in the 31 to 40 years age group (58 respondents or 36.7 per cent), while the least number of respondents are in the 51 to 60 years age group (nine respondents or 12.7%). The young age group factor also influences ICT's potential as a driver in the digital economy because ICT provides opportunities and talents to the younger generation to apply digital technology fully. The younger generation's chances and skills in the digital economy, especially in rural areas, can create income-generating opportunities for them. Therefore, these findings are consistent with Sakil (2018), who stated that today's young people are the pillars of ICT development, leading to the Industry 4.0 era.

In terms of gender, most respondents comprised females (109 respondents or 69%), while males comprised 49 respondents (31%). As for the level of education, the majority of respondents have a higher level of education or a 1st degree (98 respondents or 62%), 17 respondents (10.8%) had a higher school certificate, and 43 respondents (27.2%) had secondary education.

4.2 Business profile

Table 3 illustrates the business profile of the respondents. Since the respondents are small entrepreneurs in rural areas, most of them (97 respondents or 61.4%) are involved in food-based ventures. The potential use of ICT during Covid-19 by small entrepreneurs in rural areas is evident in the sale of various food products via social media. Most small entrepreneurs in the food business had continued to sell their products during the MCO period as most of their business activities used social media applications. In fact, their sales had multiplied many times over when using the digital platform. This clearly shows ICT's potential for developing the economy and creating employment opportunities while increasing income opportunities, especially in rural areas.

The respondents carry out their business activities such as running a clothing business (18 respondents or 11.4%), beauty and health product business (12 respondents or 7.6%), service products (25 respondents or 15.8%) and other businesses (six respondents or 3.8%) during MCO. Entrepreneurs need to be creative in providing services to customers during this period by selling various daily necessities products, such as toothpaste, soap, shampoo, and other items that are certain to attract customers.

The entrepreneurs started to create a digital business platform when they recognized ICT's potential in developing the community's economy which indirectly helps to offer employment opportunities and eradicate poverty, especially among small rural entrepreneurs (Palvial, Baqirb & Nematia 2017). As mentioned earlier, the pandemic had worsened the situation during MCO Phase 1 by limiting travel between districts and states as well as limiting or closing the operation of certain business premises. As a result, small business entrepreneurs began to look for alternatives using social media to promote their products.

The findings show that the respondents use various social media platforms to promote their business. The respondents' primary social media choices are Facebook & WhatsApp (97 respondents or 61.4%). Besides that, respondents also used Facebook (15.2%), Facebook & Instagram (11.4%), WhatsApp (7%) and Instagram (5.1%). The use of social media by the respondents clearly shows ICT's

potential in helping small entrepreneurs continue their business during the Covid-19 crisis. As a result, the traders can still carry out online business transactions in addition to promoting their business products to customers while obtaining a steady source of income.

As for the length of time needed to be involved in a business, it is found that the majority of respondents are still new in business. Most have been in business for 1 to 3 years (63 respondents or 23.4%), while 16 respondents (10.1%) have been in business for ten years or more. The respondents' income profile indicates that 44 respondents (27.8%) earned RM1000 or less, followed by RM1001 to RM2000 (40 respondents or 25.3%), RM2001 to RM3000 (37 respondents or 23.4%), RM3001 to RM4000 (31 respondents or 19.6 %) and RM4001 to RM5000 (6 respondents or 3.8%). Information regarding their business profile is shown in Table 3.

Table 3. Business profile

Profile	Frequency(n)	Percentage(%)
Types of business		
Food business	97	61.4
Clothing business	18	11.4
Beauty and health products business	12	7.6
Service business	25	15.8
Others	6	3.8
Total	158	100.0
Business medium		
Facebook	24	15.2
WhatsApp	11	7.0
Instagram	8	5.1
Facebook & WhatsApp	97	61.4
Facebook & Instagram	18	11.4
Total	158	100.0
Business period		
Less than 1 year	37	23.4
1 to 3 years	63	39.9
4 to 6 years	34	21.5
7 to 9 years	8	5.1
10 years and above	16	10.1
Total	158	100.0
Monthly income		
Under RM1000	44	27.8
RM1001 to RM2000	40	25.3
RM2001 to RM3000	37	23.4
RM3001 to RM4000	31	19.6
RM4001 to RM5000	6	3.8
Total	158	100.0

Source: Online survey (June 2020)

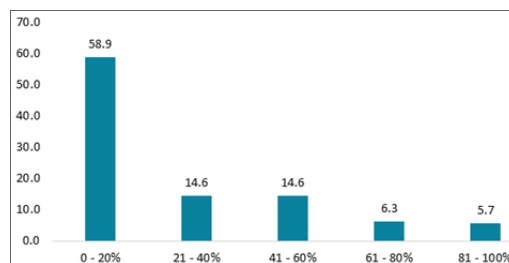


Figure 2: Estimated reduction in the percentage of sales revenues (%)

Source: Online survey (June 2020)

The Covid-19 pandemic has been a major challenge to entrepreneurs, including rural entrepreneurs, and this is evident in the reduction of sales revenues generated by entrepreneurs. As shown in Figure 2, most respondents (93 respondents or 58.9%) estimated a reduction in revenue of 0% - 20%, 10 (6.3%) respondents estimated a reduction in revenue of 61% - 80%, followed by 9 respondents (5.7%) who estimated a reduction in revenue of 82% - 100%. The result is similar to previous studies (Milzam et al. 2020; Shafi et al. 2020), which found that the level of sales revenues of Micro, Small and Medium Enterprises had decreased during the Covid-19 pandemic.

4.3 Business strategies post Covid-19

The Covid-19 pandemic is yet to take a bow, and it is difficult to predict when the world will fully recover. Nevertheless, the affected communities, especially small business owners, cannot wait without doing anything to generate income. Traders are fully prepared to devise measures and strategies to adapt to the realities of post Covid-19 business activities.

As shown in Figure 3, most respondents (61 respondents or 38.6 per cent) prefer to introduce new products as part of their post Covid-19 business strategy. Food-based products have become the main option for respondents as there is a daily demand from customers. In addition, 50 respondents (31.6%) have opted to create a consistent marketing strategy. Business marketing via social media applications has become the preferred platform for entrepreneurs and consumers for online business, especially during the Covid-19 pandemic. Digital applications such as Facebook, WhatsApp, Instagram and others can be strategic tools for entrepreneurs to promote and provide information related to their products to social media users. This strategy can arouse customers' interests to try these advertised products. Social media apps like Facebook and Instagram have a tremendous number of followers. Therefore, continuous and consistent product promotion gives entrepreneurs the opportunity to garner new customers interested in purchasing their products.

The findings show that 38 respondents (24.1 per cent) prefer to change their business or business operations as a form of a marketing strategy. In this context, respondents will change their business concept or operation from conventional business to digital business mode, which is a mode that does not require customers to be present at their premises. Any transaction can be conducted digitally due to the significant improvement in digital adaptation among consumers and entrepreneurs during the Covid-19 pandemic. This strategy is quite effective as it is the most appropriate time for entrepreneurs to re-evaluate their type of business while maintaining their existing business. However, nine respondents (5.7 per cent) did not have any business strategy for the future and decided to maintain their existing business format.

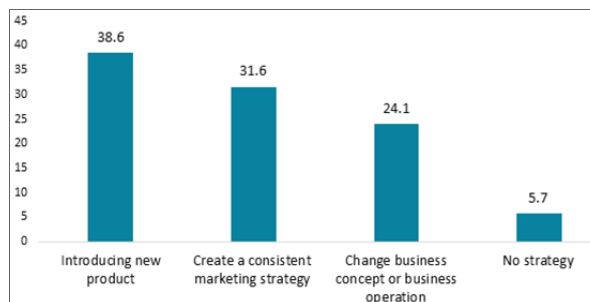


Figure 3. Business Strategies Post Covid-19

Source: Online survey (June 2020)

4.4 Statements regarding online business

ICT's potential is seen as an intermediate medium that increases participation in the economic field, especially among small entrepreneurs in rural areas (Ullah, 2017). Based on this study, the development of post-Covid-19 business shows that the respondents are fully prepared to use social media in their business activities. It clearly indicates that ICT's potential can boost the development of digital business among small entrepreneurs. The findings show that 158 respondents (100%) admitted that online business or digital business could increase sales income as well as the overall profits. (Refer to Table 4).

The results are similar to previous studies (Derguti & Shabani, 2015; Rahayu & Day 2017), which found that online businesses are able to increase sales among SME entrepreneurs, while Kurniawan & Gunawan (2019) found that online businesses can contribute to an increase in entrepreneurs' income.

Table 4. Statements regarding online business

	Frequency	Percentage (%)
Online business can increase online sale	158	100
Online business can increase profit and income	158	100

Source: Online survey (June 2020)

5. Conclusions

The nationwide Covid-19 pandemic has created a new phenomenon in business activities. It has changed the business structure, and society can learn and explore new knowledge to oversee its survival through these business activities. This indicates that the current situation has recognized the widespread use of digital technology by the community in order to boost business activities between traders and consumers.

The findings of the study also indicate that the respondents had utilized various strategies to strengthen their business activities. They are aware that digital business is a key transformation of a core business strategy, and it is the reality of a new business norm of the future. Although this study was conducted over a short period of time and represented by only selected traders, it indirectly gives the impression that the respondents consisting of small traders are beginning to realize the importance of adopting the digital platform to carry out their business activities. This is because, during the Movement Control Order (MCO) period, online business activities can still be implemented. In fact, some traders witnessed the exponential growth of their businesses after adopting the digital platform.

Therefore, communities need to play a proactive role to help the government manage the economy during the on-going crisis. Among the roles that need to be performed by society is to optimize the advantage of digital technology in order to diversify sources of income. For small traders, in particular, this crisis period is the best time to transform an existing business into a digital business. It is also the right time for every trader to seize the opportunity to highlight their potential in business activities to maximize usage of the digital business platform and recognize its importance for the future survival of one's business.

6. Acknowledgement

We would like to thank Universiti Sains Malaysia (USM) for funding this project through Universiti Sains Malaysia's Short-Term Grant, grant number [304/PJ]AUH/6315365].

References

- Abdul Aziz, M. (2020). COVID-19: Ekonomi Malaysia potensi alami kemelesetan teknikal separuh pertama tahun ini. *Berita Harian Online*. 27 March 2020. <https://www.bharian.com.my/bisnes/lain-lain/2020/03/669685/covid-19-ekonomi-malaysia-potensi-alami-kemelesetan-teknikal-separuh> (accessed on 6 June 2020)
- Abdul Rashid, S. M. R., Hassan, F., & Ahmad, K. (2020). Post Covid-19 Online Business Strategies by Small-scale Entrepreneurs in Malaysia. *International Journal of Academic Research in Business and Social Sciences*. 10(9), 564-571. https://hrmars.com/papers_submitted/7635/post-covid-19-online-business-strategies-by-small-scale-entrepreneurs-in-malaysia.pdf (accessed on December 2020)
- Bartik, A; Marianne, B; Zoë B. Cullen; Edward L. G; Michael Luca; and Christopher Stanton. (2020). The Impact of COVID-19 on Small Business Outcomes and Expectations. *Proceedings of the National Academy of Sciences* 117, no. 30 (28 July, 2020). <https://doi.org/10.1073/pnas.2006991117> (accessed on 2 December 2020)
- Bernama. (2020). PENJANA: Sokongan padu kepada PKS dan rakyat. *Bernama.Com Malaysia Prihatin*. 8 June 2020. https://www.bernama.com/bm/ekonomi/news_penjana.php?id=1848387 (accessed on 6 June 2020)
- Derguti, A., & Shabani, L. (2015). The Impact of Electronic Business on The Development of Small and Medium Enterprises in The Republic of Kosovo. *European Journal of Business, Economics and Accountancy*, Vol. 3(4). 1-13. <http://www.idpublications.org/wp-content/uploads/2015/05/the-impact-of-electronic-business-on-the-development-of-small-and-medium-enterprises-in-the-republic-of-kosovo.pdf>
- Dev, S.M. & Sengupta, R. (2020). Covid-19: Impact on the Indian Economy. Indira Gandhi Institute of Development Research, Mumbai Working Papers from *Indira Gandhi Institute of Development Research, Mumbai, India*. April 2020. <http://www.igidr.ac.in/pdf/publication/WP-2020-013.pdf.1-50>
- Dube, K. & Kathende, C.N. (2020). An inclusive response to COVID-19 for Africa's informal workers. 29 MAY, 2020. Published on *Africa Can End Poverty in World Bank Blogs*. <https://blogs.worldbank.org/africacan/inclusive-response-covid-19-africas-informal-workers>. (accessed on 6 June 2020).
- Fabiel, N.F; Pazim, K.H & Langgat, J. (2020). The Impact of Covid-19 Pandemic Crisis on Micro-Enterprises: Entrepreneurs' Perspective on Business Continuity and Recovery Strategy. *Journal of Economics and Business, Vol.3* (2), 837-844. doi: 10.31014/aior.1992.03.02.241
- Fairlie, R. (2020). The impact of Covid-19 on small business owners: Evidence of early-stage losses from the April 2020 current population survey (No. w27309). *Journal of Economics & Management Strategy, Vol.29* (0): 727-740. <https://onlinelibrary.wiley.com/doi/epdf/10.1111/jems.12400>(accessed on 3 December, 2020).
- Gardner, S.D & Blondeau, A. (2020). Digital Tools for Small Business During COVID19. *Local Initiatives Support Corporation*. 17 April 2020. https://www.lisc.org/media/filer_public/58/72/5872cab2-e323-478f-a9dd-94add3762358/digital_tools_for_small_biz_during_covid_19.pdf (accessed on 6 June 2020).
- Hayter, S. (2020). Business as unusual': How COVID-19 could change the future of work. *UN News: Economic Development*, 27 May 2020. <https://news.un.org/en/story/2020/05/1064802>
- Ibrahim Abu Ahmad. 2016. Is it the Dawn of Industrial Revolution 4.0 in Malaysia, Malaysia's National Foresight Magazine - MIGHT, 4/2016, pp 4-7.
- Johnsen, M.F; Kaplan, J; Frias, L; & Morgan (14 March 2020). A third of the global population is on coronavirus lockdown — here's our constantly updated list of countries and restrictions. *Business Insider Australia*. <https://www.businessinsider.com.au/countries-on-lockdown-coronavirus-italy-2020-3> (accessed on 6 June 2020)
- Katooro, P.B.N. (2020). Opinion: Support rural, women-led entrepreneurs amid the COVID-19 pandemic. *Devex: Global Views Covid-19*. <https://www.devex.com/news/opinion-support-rural-women-led-entrepreneurs-amid-the-covid-19-pandemic-97030>. (accessed on 25 June 2020)
- Kawi, M.R. (2020). Peniaga kecil sesuaikan diri norma baharu. *Harian Metro*. 26 April 2020. <https://www.hmetro.com.my/mutakhir/2020/04/571425/peniaga-kecil-sesuaikan-diri-norma-baharu-metrotv> (accessed on 25 June 2020)
- Kurniawan, B & Gunawan, N.M. (2019). Utilization of Technology in Online Businesses College Students. *IOP Conf. Series: Materials Science and Engineering*. 1-7. <https://iopscience.iop.org/article/10.1088/1757-899X/662/3/032059/pdf>
- Lundin, N. (2020). Covid-19 and digital transformation – What do we see now and what will we see soon? *Offices of Science and Innovation*. 27 April 2020. <https://sweden-science-innovation.blog/beijing/covid-19-and-digital-transformation-what-do-we-see-now-and-what-will-we-see-soon/> (accessed on 25 June 2020)
- Maritz, P.A., Perenyi, A., de Waal, G., Buck, C. (2020). Entrepreneurship as the unsung hero during the current COVID-19 economic crisis: Australian perspectives. *Sustainability*, 12, 4612. 1-9. doi: 10.3390/su114612.
- Millhiser, A. (2020). What COVID-19 Has Taught Businesses About Digital And The Human Connection. *Forbes*. 16 April 2020. <https://www.forbes.com/sites/amitymillhiser/2020/04/16/what-covid-19-has-taught-businesses-about-digital-and-the-human-connection/#3dd4463fa9a8>. (accessed on 26 July 2020)

- Milzam, M., Mahardika, A., & Amalia R. (2020). Corona Virus Pandemic Impact on Sales Revenue of Micro Small and Medium Enterprises (MSMEs) in Pekalongan City. *Journal of Vocational Studies on Applied Research*, 2(1). 7-10. <http://dx.doi.org/10.14710/jvsar.2.1.2020.7-10>
- Muhammad Nasir, M. (2020). Covid-19: Perniagaan terjejas. *Harian Metro*. 6 Mac 2020. <https://www.hmetro.com.my/mutakhir/2020/03/551783/covid-19-perniagaan-terjejas> (accessed on 25 June 2020)
- Nagamani, S.T. & Veni, G.K. (2016). ICTs for the Empowerment of Rural Women: A Review. *International Journal of Computer Science and Technology*, 7 (2): 166.
- Palvial, P., Baqirb, N. & Nematia, H. (2017). ICT for socio-economic development: A citizens' perspective. *Information & Management*. 160-176. <http://dx.doi.org/10.1016/j.im.2017.05.003>.
- Phillipson, J.; Gorton, M.; Turner, R.; Shucksmith, M.; Aitken-McDermott, K.; Areal, F.; Cowie, P.; Hubbard, C.; Maioli, S.; McAreavey, R.; Souza-Monteiro, D.; Newbery, R.; Panzone, L.; Rowe, F.; Shortall, S. (2020). The COVID-19 Pandemic and Its Implications for Rural Economies. *Sustainability* 2020, 12,3973. 1-9. <https://doi.org/10.3390/su12103973>
- Rahayu, R., & Day, J. (2017). E-commerce adoption by SMEs in developing countries: Evidence from Indonesia. *Eurasian Business Review*, 7(1), 25-41. <https://doi.org/10.1007/s40821-016-0044-6>.
- Sharples, B. (2020). Coronavirus (COVID-19) - effect on rural businesses. *Michelmores*. 6 April 2020. <https://www.michelmores.com/news-views/news/coronavirus-covid-19-effect-rural-businesses> (accessed on 25 June 2020).
- Saari, M.Y. (2020). COVID-19: Malaysia sedang alami perubahan ekonomi total, ini 8 langkah persediaan. *Astro Awani*. 31 Mac 2020. <http://www.astroawani.com/berita-malaysia/covid-19-malaysia-sedang-alami-perubahan-ekonomi-total-ini-8-langkah-persediaan-236161> (accessed on 25 June 2020).
- Sakil, A.H. (2018). ICT, youth and urban governance in developing countries: Bangladesh perspective. *International Journal of Adolescence and Youth*, 23 (2): 219-234. <https://doi.org/10.1080/02673843.2017.1330697>
- Shafi, M., Liu, J., & Ren, W. (2020). Impact of Covid-19 Pandemic on Micro, Small and Medium-Sized Enterprises operating in Pakistan. *Research in Globalization*, 2(2020). 1-14. <https://reader.elsevier.com/reader/sd/pii/S2590051X20300071?token=B7FEE35587AF6C8886C8CB0690A6FFAE69501FF882BF090FB2CoDE3F251A07A577B49EBCB6E03FD444DA70B1ED40B7F9&originRegion=eu-west-1&originCreation=20210602033436>